Identifying, Measuring, and Valuing Knowledge-Based Intangible Assets:

New Perspectives

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the dynamics of organizations' intellectual capital. In addition to the theoretical and conceptual contribution, this chapter introduces an empirical setting for testing the framework. The purpose of the empirical illustration is not to provide exhaustive and hands-on guidelines for managing knowledge flows but to increase managers' awareness of this highly relevant issue and to offer some suggestions for possible development measures. The knowledge flow audit helps to pinpoint the processes in which IC transforms into value or into some other form. It is based on a fundamental assumption; the dynamics of IC can be demonstrated by examining knowledge flows. Empirical results from the conducted case studies indicate that the knowledge flow audit as a whole and especially the related knowledge flow survey can be successfully used for recognizing and mapping out the dynamics of knowledge assets within a short time period. According to the feedback received from the case studies, the audit provides important information for management purposes by describing the status and accumulation of knowledge assets.

Chapter 3

Linking the knowledge-based view and the intellectual capital view of the firm, this chapter has as its purpose to underline the relevance of a specific component of intellectual capital, namely relational capital, in the knowledge acquisition and transfer processes as well as its influence on a firm's value creation. We used a qualitative research based on a multiple case study, and six Spanish knowledge-intensive firms were analyzed in depth. The results show that the main relational capabilities used by firms to create value through knowledge management are: relationships with customers, suppliers and stakeholders; acquisition of established firms; setting-up of joint ventures; collaboration with Universities, national and international institutions; participation in forums and conferences; publications; advice given by consultants and experts; and benchmarking practices. These capabilities allow firms to acquire and transfer knowledge from the environment where they develop their activity with the aim of obtaining benefits such as innovations; customers, suppliers and stakeholders' satisfaction; an improvement in the firm's image and credibility; new knowledge; and learning.

Chapter 4

A successful company succession depends on a multitude of different aspects. In the case of external succession, certainly, the available funds represent a critical factor. Nevertheless, it can be argued that the decision to acquire a company is based on other factors as well. This chapter rests upon the hypothesis that a potential external successor will be only interested in those companies offering promising prospects. Thus, it is expected that the decision to takeover a company is rooted in the target firm's inherent intangible assets which justify a financial investment in return. Data are collected through interviews with eight external successors from Germany who pursued buy-in respectively buy-out initiatives in small and medium-sized enterprises. The study's findings highlight those intangible assets

that are regarded as critical in the external succession process. This helps us to obtain a more complete picture about the issue of company succession.

Section 2
Measuring Intangibles

The aim of this paper is to provide the foundations of a new measurement system that will help companies to diagnose and manage their innovation performance from a holistic perspective. Adopting a resource-based view of the firm (and more precisely, a dynamic capability approach), the measurement system proposed is intended to show whether the company has the right combination of resources (both tangible and intangible) in order to foster effective and efficient innovation, as well as the degree of mastery achieved in the combination and orchestration of those resources (i.e. capability excellence), the outputs obtained and their influence on value creation and on competitive advantage.

At present, knowledge plays a key role in the new economies. Nevertheless, its measurement as Intellectual Capital has not been possible from a certainty vision for the states, events and entities, leaving aside the complexity of the organizations. This work proposes a paradigmatic shift where the fundamental base is the relational–semiotic condition of human organizations; any deviation from its strategic goals could be explained through the gap between language and action levels. Defined as Coherence and Congruity Management, the process named NETOUT, allows reducing incoherence through the participation in decisional modeling, and transferring repulsion interactions to organization areas that re-signify the conflict. Configurations arising from coherence are a Production Cognitive Capital and constitute a measurement of Intellectual Capital.

In the knowledge economy knowledge productivity is the main source of competitive advantage and thus the biggest management challenge. Based on a review of the concept from two distinct perspectives, knowledge productivity is defined as the process of knowledge-creation that leads to incremental and radical innovation. The two main elements in this definition are 'the process of knowledge creation' and 'incremental and radical innovation'. The main aim of this chapter is to contribute to a better

understanding of the concept of knowledge productivity in order to support management in designing policies for knowledge productivity enhancement. After elaborating on the concept of knowledge productivity, the two main elements are combined in a conceptual framework – the knowledge productivity flywheel. This framework appeared to be an effective model for supporting initiatives that aim for enhancing knowledge productivity.

Chapter 8

At present, there are no standards for assessing the value of intangible assets or intellectual capital. Historically, a number of frameworks have evolved, each with a different focus and a different assessment methodology. In order to assess that knowledge management initiatives contributed to the fight against terrorism in Canada, a results-based framework was selected, customized and applied to CRTI (a networked science and technology program to counter terrorism threats). This chapter describes the step by step process of how the results-based framework was applied to measure the value contributed by knowledge-based assets. A combination of qualitative, quantitative and anecdotal assessment techniques was used and a map was employed to visualize the evaluation results. The strengths and weaknesses of this particular approach are discussed and specific examples from CRTI are presented to illustrate how other organizations can use this method to assess the value-added to innovation and research and development using a results-based framework.

Chapter 9

European universities are immersed in an intensive transformation process to order to transform themselves into more autonomous and competitive organisations. Adapting to the new demands implies the introduction of management systems, traditionally used by firms, in order to govern universities according to criteria of efficiency and effectiveness. In recent years, the idea of managing and reporting on intangibles and Intellectual Capital in universities has been acquiring progressive importance in Europe. The Chapter provides a comparative analysis of the most significant European experiences in managing and reporting Intellectual Capital in higher education institutions addressing two main issues: the identification of the benefits and obstacles of implementing IC frameworks in these particular institutions and reflect on the necessary degree of standardisation of indicators to allow comparability. To this purpose, three types of initiatives are analysed: the case of Austrian universities, which are compelled by law to report annually on their IC; five initiatives developed by individual institutions on a voluntary basis, and an attempt to build a homogeneous IC framework for European universities.

Most companies that are deeply investing in Knowledge Management (KM) initiatives encounter substantial difficulties in assessing the effectiveness of these programmes. Actually, measuring the impact of KM projects is still a puzzling problem both at the conceptual and operative level. However, measuring their performance is necessary for monitoring their progress and for successfully managing and allocating resources, as well as to maintain the support and commitment by the top management. Although several KM performance evaluation approaches have been proposed in literature, they are still far from becoming an established practice. The chapter aims at discussing this issue by placing it in a business context. First, the literature on KM performance evaluation is briefly reviewed, and the main methods currently used are classified. Then, the practical experience of a multinational company is discussed, with the purpose to describe the problems that practitioners face in their daily experience, and provide insights into the possible improvements of KM performance measurement.

Section 3
Financial Valuation of Intangibles

This chapter details a performance-based theoretical model of intangible asset valuation – Engineering – Business Reasoning, Analytics and Intelligence Network (E-BRAIN). E-BRAIN's origin started with the construction of a validated taxonomy of intangible asset value drivers: Framework of Intangible Valuation Areas (FIVA) (Green 2008). E-BRAIN is a culmination of research and practice and offers valuable insights into the emerging discipline and field of intangible assets. Using systems engineering and organization memory (cognition) as the foundation for its structure, the model identifies the path from intangible key performance indicators to performance measurement. This chapter introduces E-BRAIN as a systemic and holistic approach to intangible asset valuation that starts with a set of metrics by which business leaders can account for intangible or non-financial factors that affect value creation in the knowledge era business.

This chapter considers the strategic management of intellectual capital, balancing the need to develop knowledge assets with the need to protect them. In making more strategic decisions, metrics on the

level of intellectual capital and degree of knowledge management necessary to compete in an industry are required, as are those on the threat from competitive intelligence activity. We develop the case for appropriate metrics that accomplish these purposes, noting both potential and limitations. We also consider alternatives, additional data that could contribute to the usefulness and understanding of the core metrics, and provide suggestions for further research.

This chapter offers a practical guide to the structure, taxonomy, measurement and use of intellectual capital (IC) in business. It traces the roots of IC and exposes and explains the remarkable lack of consensus that has been allowed to develop over the years and the methods used to try to measure it. In keeping with the practical, yet grounded, approach of the chapter, the chapter focuses on business innovation from an IC perspective. Most importantly, through a case study, the chapter introduces a practical means of measuring IC and modelling businesses predictively connecting soft issues such as human capital and relationship management with hard financial output. Recognising that IC is still an evolving discipline, the chapter offers a number of areas for future research and case study.

This paper briefly analyses the potential impact of financial risks on the valuation of intangibles from a theoretical and heuristic approach. We justify the financial risk that has the greatest impact on the value of intangibles for a wide range of intangibles and types of valuation models. Four types of financial risks are considered for the analysis of three principal types of intangibles (resource, capacity and asset). We present a study applied to six examples of intangibles and eleven categories of valuation methods.The results are coherent with the literature because the common examples of valuation of intangibles use the recommendable methods according to the lower impact of financial risks.